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THE ANTHROPOMORPHIC APPLICATION OF GENDER STEREOTYPES TO HORSES

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ABSTRACT

Gender stereotypes shape human social interaction, often to the detriment of women and those who do not comply with normative expectations of gender. So far, little research has assessed the extent to which people apply gender stereotypes to animals, and the implications this may have for individuals and groups, particularly female animals. The current study investigated survey respondents' preference for horses to perform in different sport and leisure practices, based solely on ideas about the sex of the animal. An anonymous online survey explored the preferences of riders for mares, geldings and stallions for dressage, show-jumping and trail-riding, and reasons for their choice. A total of 1032 responses were received. Geldings were the preferred choice, being perceived as safe and reliable, followed by stallions who were valued for their supposed power, presence and good looks. Overall, mares were the least

popular choice, and were discussed in ambivalent terms reflecting broad gender stereotypes which depict females as moody, flighty and unpredictable. Respondents appeared to draw on gender stereotypes to make judgements about horses and justify their choices. The anthropomorphic application of gender stereotypes to animals may have negative consequences for female animals, shaping human-animal interactions and expectations.

KEYWORDS: Anthropomorphism; behaviour; gender; horses; stereotypes; sex; sport.

INTRODUCTION

Human-horse relationships are complex and can be based around a mixture of aspects including affection, care, utility and purpose (Dashper, 2017). Unlike most companion animals, such as cats and dogs, horses are usually expected to ‘do a job’ for their owners/caretakers, be that one based around leisure, through trail-riding; sport, through jumping and dressage; or, in some parts of the world, work in agriculture, transport and tourism (Davis & Maurstad, 2016). Consequently, expectations about a horse’s potential performance, as well as his/her character and appearance, may inform a prospective owner’s judgement about the suitability of a horse for the intended role. Whereas companion animal owners may base their judgements of an animal’s potential suitability on past experience, appearance and social expectations about a breed and/or species (Budge, Spicer, St. George & Jones, 1997), horse people’s decisions reflect additional beliefs related to perceived performance potential. These judgements will draw on past experience, social knowledge about specific breeds and types of horses, and knowledge about the requirements of particular equestrian tasks for which a horse might be acquired. An important factor influencing these judgments is the sex of the horse, as different expectations are attached to the behaviour and performance of stallions (entire male horses), mares (entire female horses) and geldings (castrated male horses), and these can affect people’s views on the suitability of an animal for a particular role or task.

In this paper, we draw on survey data to explore some of the beliefs people hold about the suitability of horses for equestrian sport and leisure, based on the sex of the horse. Respondents to the survey frequently employed gender stereotypes to justify their

choice of a particular sex of horse for a specified activity. Drawing on a theoretical framework informed by feminist human-animal studies (Birke, 2002; 2010), we consider some implications of applying gender stereotypes to horses. Human gender stereotypes, and the gender order to which they contribute, systematically disadvantage females in relation to males, positioning them as complementary and opposite, yet inherently unequal (Schippers, 2007). Consequently, we suggest that the anthropomorphic application of these gender stereotypes to horses may also disadvantage females more than males. This may have implications for the horse industry and the perceived ability and desirability of different horses for performing in sport and leisure.

GENDER STEREOTYPES: HUMANS AND ANIMALS

The role of horses in relation to humans has changed dramatically, particularly over the last 150 years, because, with mechanisation of transport, agriculture and warfare, the horse has largely shifted from being a partner in work to one in leisure (Hedenborg & White, 2012). In western societies, a large percentage of horses are expected to perform in sport, and/or to be a safe and trusted mount on tracks and trails. Depending on the horse's primary role, prospective owners and riders will value different characteristics. For high performance sport in dressage or jumping, a horse will need to have athletic ability, strength and stamina, whereas for trail-riding a horse may also be expected to be calm, relatively unreactive and safe (McGreevy, Oddie, Hawson & McLean, 2015). Various factors influence the suitability of a horse for different tasks, including breed, age and training (Hawson, Oddie, McLean &

McGreevy, 2011; Oddie, Hawson, McLean & McGreevy, 2014), but prospective owners/riders often also make judgements about a horse's character and potential based on stereotypes related to the sex of the animal (McGreevy, 1996). Broad generalisations about the expected characteristics of, for example, a mare differ to those linked to stallions and also to geldings. This was illustrated through the recent 'Mares issue' of *Horse and Hound*, one of Britain's leading equestrian publications, which featured numerous articles about the supposed shared characteristics of female horses. One article entitled '15 reasons why mares are better than geldings' drew on a number of broadly held stereotypes about both sexes to conclude that mares are more careful, clever and stand-offish than the slobbery, affectionate and easy-to-bond-with geldings (Jenkins, 2017, 1 February).

Stereotypes are “shared representations of complex information which, by virtue of their simplicity, are readily available and easily deployed” (Budge et al., 1997, p.37). As such, humans deploy stereotypes when making connections and drawing conclusions on a wide variety of subjects; largely to help reach some shared understanding and knowledge. Stereotypes are widely applied to animals, such as the popular notion that dogs are friendly and loyal, while cats are independent and aloof. These stereotypes may have some truth underpinning them, or they would not resonate with people and become widely accepted. By necessity, the stereotypes also simplify and strip away nuance and individuality from our understanding of a given animal (and everything else to which we apply stereotypical attributes), and can become self-fulfilling prophecies as we tend to observe what we expect to. When applied to animals, and to plans to buy/use an animal for a particular purpose, stereotypes can disadvantage whole groups of animals that are rendered less useful or

trainable in the eyes of humans. These prejudices can contribute to particular breeds, species and even colours (Finn et al., 2016) being regarded as less desirable and thus less likely to be bred, bought and adopted. Stereotypes can lead to some animals being seen as less attractive to potential owners/caretakers, particularly in the leisure market, regardless of the individual animal's attributes. As Tyler (2007, p.47) argues, "[t]he danger with stereotypes, then, lies in allowing them to hide their limitations and partiality, in failing to appreciate that it is an incomplete picture that they paint." Unreflective and uncritical acceptance of stereotypes may compromise the welfare and viability of whole groups of animals.

Stereotypes can be based on a broad range of traits and characteristics, but gender is one of the key attributes around which humans build stereotypical understandings of other people. Gender stereotypes are deeply entrenched and are broadly consistent across cultures (Löckenhoff et al., 2014). Children begin conforming to gender stereotypes at an early age, and understand the social sanctions that are applied for transgressing stereotypical expectations of normative gendered behaviour (Mulvey & Killen, 2015). Despite significant advances towards greater gender equality in some countries and on some levels, gender stereotypes have remained remarkably consistent for the last 30 years (Haines, Deaux & Lofaro, 2016). Women and girls are expected to be kind, caring, helpful and concerned about others, whereas men and boys are believed to be more agentic, independent, decisive and aggressive (Brescoll, 2016; Ellemers, 2018; Heilman, 2001). Gender stereotypes have material effects, influencing how women and men are perceived and how their actions and behaviours are assessed and rewarded, often disadvantaging women and marginalising those

whose gender performance does not align with stereotypical expectations (Butler, 2011; Rudman & Glick, 2001).

The application of gender stereotypes to animals has received relatively little attention. Ramirez's (2006) analysis of gender and dog ownership is one of the few studies to explicitly consider how people apply gender stereotypes to animals. Participants in his research viewed female dogs as more moody but less aggressive than male dogs, who were considered more likely to be fun companions to play with. Ramirez's participants were applying gender stereotypes to dogs and using stereotypes as a means to interpret the behaviour of both their own individual dog and the expected behaviour of any potential dog they may encounter. Ramirez (2006, p.385) concludes that this "illustrates the power of gender stereotypes to shape expectations and interpretations of *all* relationships, not simply those with other human beings". Hurn's (2008) study of Welsh cob breeding also indicates that people readily deploy gender stereotypes in their assessments of and attitudes to animals. In her ethnographic research she found that this was frequently to the detriment of mares, who were often described as moody, bitchy and difficult, by their human handlers.

While considerations of gender across species lines are limited, there is more discussion about how human gender is formed with and in relation to animals (see, for example, Adams & Donovan, 1995; Birke & Brandt, 2009; Donovan, 2008; Dunager, 1995; Hird, 2008). Feminist researchers argue that ideas about gender are thoroughly intertwined with ideas about animals, however inaccurate those ideas may be (Birke,

2002; 2010). Animalising pejoratives operate along the lines of stereotypes, providing the very language of gender stereotypes. Animalised gender stereotypes for men include ‘wolf’, ‘dog’, ‘rooster’, ‘pig’, or ‘rat’; while for women they include ‘fox’, ‘chick’, ‘cow’, ‘bitch’, ‘mouse’ or ‘cougar’. As these examples show, ideas about gender are always already infused with ideas about animals.

There is clearly a need to develop understanding of the ways in which people mobilise gender stereotypes to inform judgements about animals. Stereotypes draw on simplistic, often anthropomorphic, views of animals, assuming that due to the simple fact of being male or female, entire or gelded, judgements can be made about that animal’s ability to perform in sport, as well as his or her character and temperament. Anthropomorphism can be a useful tool to advance interspecies understanding, and may be particularly relevant for human-horse relationships in assisting humans to develop some empathy and insight into their horse’s experiences (Dashper, 2017). However, given that acceptance and use of gender stereotypes can have negative effects on humans (Heilman, 2012; Kahalon, Shnabel, & Becker, 2018), by limiting understanding and marginalising groups and individuals, anthropomorphic application of gender stereotypes to animals may also result in negative assumptions about particular groups, potentially affecting how those animals are perceived and treated by humans. It is female humans who are more likely to be discriminated against in relation to gender and narrow gender stereotypes, and so female animals may suffer more from anthropomorphic application of these stereotypic attributes to animals.

To explore these issues, we conducted a survey exploring gendered attitudes to horses. We begin by outlining the methods of the study before going on to report

findings that illustrate if and how stereotypes are used to inform judgements of a horse's ability to perform in sport and leisure. We discuss the extent to which these opinions are based on (human) gender stereotypes, and the consequences such an approach may have for interspecies understanding, and the relative status and desirability of stallions, geldings and mares within the equestrian sport and leisure market.

METHOD

An online questionnaire was designed using the program SurveyMonkey (SurveyMonkey Inc., California, USA, www.surveymonkey.com) to gather information from horse owners and non-horse owners.

Participants

Advertisements were placed on website forums calling for participants in a "Horse Selection" survey. Forums included Cyberhorse (www.cyberhorse.com.au), Horseyard (www.horseyard.com.au) and Bush Telegraph (www.bushtelegraph.com). A web link was placed on the homepage of the Faculty of Veterinary Science and the Human Animal Research Network at The University of Sydney. Two emails (an initial and a follow-up) with links to the survey were sent directly to both Veterinary Science and Animal and Veterinary Bioscience undergraduate students at The University of Sydney's Faculty of Veterinary Science requesting participation,

regardless of whether students considered themselves experienced with horses. Approaches were also made to secretaries of the Australian Campdraft Association, Pony Club Association, Endurance Association, South Australian Dressage Association, Dressage NSW, National Pleasure Horse Association, Victorian Eventers Association and Horse Riding Clubs Association. An advertisement was placed in *Horses and People* magazine in the August 2012 edition, appearing both in print and online. In addition, 27 National Breed Associations were also emailed to request the participation of members.

This study was conducted under the approval of the University of Sydney Human Research Ethics Committee (approval number: 01-2010/12396).

The survey was also distributed through social media channels (e.g. Facebook) and participants were asked to encourage others to take part and recruit a large variety of people, both with and without horse riding and handling experience.

In total 1032 responses were received. Due to sampling methods and distribution channels used, as outlined above, it is likely that respondents were predominantly leisure riders, as distinct from professionals.

Materials

The questionnaire comprised one question asking respondents to state their equestrian experience, two that explored their demographic details, two closed questions that

required respondents to rank their preferences, three closed questions that required respondents to make their choices and three open questions.

Specifically, the following three questions were posed, asking respondents to select stallion, mare or gelding for different sport or leisure practices:

1. Which horse would you expect to be used for dressage?
2. If you had to trail-ride ONLY ONE of the following horses, which one would you choose?
3. Which horse would you expect to be used for show-jumping?

For each of these three questions, participants were invited to provide a short (maximum of 25 words) explanation for their choice.

Analysis

Taking an interpretive approach, our primary focus in analysis was on the short open text answers, drawing on principles of thematic analysis (Guest, MacQueen & Namey, 2011). These answers were analysed using NVivo 11 qualitative data analysis software (QSR International Pty Ltd, Version 11, 2015) to identify codes for each category (trail-riding – mare/stallion/gelding; dressage – mare/stallion/gelding; show-jumping – mare/stallion/gelding). The codes were identified based on the keywords and concepts that appeared in the answers, such as ‘easy-going’, ‘careful’ and ‘powerful’. The five most common codes for each category were used to reveal the predominant ways participants explained their stated preferences for mare, stallion or

gelding in relation to each of the three activities. These codes were further analysed in relation to gender stereotypes, identified in the literature.

RESULTS

A total of 1032 completed surveys resulted in 3075 responses for the three questions. Respondents indicated a strong preference for male horses (geldings and stallions) in relation to all three activities, as illustrated in Table 1.

Table 1: Distribution of respondents' (n= 1032) selection of stallions, geldings or mares for dressage, show-jumping and trail-riding. The number of respondents (n) and the percentage they represent are reported for each of the three activities.

Activity	Stallions (n) %	Geldings (n) %	Mares (n) %	Total (n)
Dressage	428 41.5%	441 42.7%	163 15.8%	1032
Show-jumping	285 27.9%	507 49.6%	230 22.5%	1022
Trail-riding	50 4.9%	731 71.6%	240 23.5%	1021
				3075

Activity-specific preferences for horses by sex

Dressage

Dressage is described by the Federation Equestre Internationale (FEI) as “the highest expression of horse training” and “the most aesthetically pleasing of the disciplines ... as sport and art combine” (FEI, 2016). Dressage has appeared on the Olympic programme since 1912, and has gained in popularity with the success of British double gold-medallist Charlotte Dujardin and equine partner Valegro, and the accessibility of the ‘dancing horses’ of the freestyle competition (Fletcher & Dashper, 2013). Dressage (from the French, *dresser* – to train) requires controlled strength, power and athleticism from the horse, who must be highly trained and therefore especially trainable to work in partnership with the rider. Like gymnastics and figure-skating, it is judged subjectively and so aesthetics do play a role in consideration of performance (Dashper & St John, 2016) and some qualities are scored more reliably than others (Hawson, McLean & McGreevy, 2010). These features of the sport influence perceptions of what makes a ‘good’ dressage horse and also how it is managed (McGreevy, French & Nicol, 1995), and are reflected in the comments of respondents to this survey.

Geldings were the most popular choice (n=441; 42.7%) for use in dressage, closely followed by stallions (n=428; 41.5%), with mares a distant third (n=163; 15.8%). The main five reasons given for choosing a gelding for dressage were ‘trainable’ (n=46; 10.4%), ‘calm’ (n=36; 8.2%), ‘consistent’ (n=34; 7.7%), ‘reliable’ (n=34; 7.7%), and ‘easy-going’ (n=32; 7.3%). Geldings were described as “*quiet, reliable and trainable*.”

Bonds with the rider for response and instruction” (R535), and *“geldings are easy to train, try hard to please and do not have hormonal swings like entire animals may”* (R223). The consistency and reliability of geldings was highlighted for dressage, *“geldings are the most solid when it comes to attitude”* (R432), and their supposed easy-going temperaments were prized as they were described as *“easy-going, nice to work with”* (R131).

The main five reasons given for choosing a stallion for dressage were ‘presence’ (n=66; 15.4%), ‘movement’ (n=62; 14.5%), ‘looks’ (n=48; 11.2%), ‘power’ (n=42; 9.8%) and ‘spirit’ (n=41; 9.6%). Explanations given for choosing a stallion were very different to those offered in relation to geldings. Dressage is judged subjectively and, although judging criteria are supposed to be based around sport performance alone, an imposing appearance may boost scores. Certainly, respondents in this study believed this focus on appearance gives stallions a competitive advantage. Reasons included *“radiance, charisma. A proud stallion is impressive”* (R145), *“stallion has the WOW factor and exudes a ‘presence’ that mares or gelding do not”* (R603), and *“they naturally like to show off and ‘strut their stuff’ which is what you need in dressage”* (R965). The appeal of stallions appears to lie in their looks, power and physical capability which, according to many respondents, cannot be matched by other sexes: *“if you can contain explosiveness then you have an advantage over mares and geldings in expression of movements and impulsion”* (R220).

The main five reasons given for choosing a mare for dressage were ‘they give more’ (n=15; 9.2%), ‘trainable’ (n=15; 9.2%), ‘spirit’ (n=13; 8%), ‘looks’ (n=6; 3.7%) and

‘presence’ (n=5; 3.1%). Those who chose mares often based their explanations on notions of ‘a good mare’ being a little different and special in comparison to (average) male horses: “*A mare on a good day can beat the pants off a gelding on a great day!*” (R663). However, most answers given for choosing mares were underpinned with an air of ambivalence that was absent in answers related to stallions and geldings: “*if you ask correctly, will give you so much more*” (R656), and “*mares will give you 110% (clichéd, I know) once you ‘have them’. The challenge is to ‘get them’*” (R1045).

Show-jumping

Show-jumping is described by the FEI (n.d.) as “a spectacular mix of courage, control and technical ability”. It has appeared on the Olympic programme since 1904. Show-jumping requires explosive power, speed and agility from the horse, who must respond immediately to cues given in order to clear obstacles in the fastest time possible. Again, geldings were the most popular choice of horse (n=507; 49.6%) for this activity, followed by stallions (n=285; 27.9%) and then mares (n=230; 22.5%).

The main five reasons given for choosing a gelding for show-jumping were ‘reliable’ (n=48; 9.5%), ‘calm’ (n=34; 6.7%), ‘focus’ (n=28; 5.5%), ‘trainable’ (n=23; 4.5%) and ‘predictable’ (n=23; 4.5%). Geldings were chosen because they are seen as “*reliable, consistent and safe*” (R591), and “*easier to train, reliable and not as spirited*” (R383). These attributes were seen as important for show-jumping, as one respondent explained: “*jumping is stressful. A gelding I believe is calmer and I feel safer to jump*” (R456).

The main five reasons given for choosing a stallion for show-jumping were ‘strength’ (n=50; 17.5%), ‘power’ (n=38; 13.3%), ‘spirit’ (n=23; 8.1%), ‘athletic’ (n=17; 6%) and ‘what is most commonly seen/chosen for this discipline’ (n=6; 2.1%). Again, reasons for choosing a stallion for show-jumping were very different to those for a gelding. For jumping, strength and power were seen as the prized attributes of a stallion that suited him for the activity: “*have very good natural ability, stamina, strength, elevation and heart*” (R632), and “*tough, explosive power*” (R705).

The main five reasons given for choosing a mare for show-jumping were ‘they give more’ (n=31; 13.5%), ‘temperament’ (n=13; 5.7%), ‘careful’ (n=12; 5.2%), ‘athletic’ (n=11; 4.8%), ‘bond to people’ (n=11; 4.8%) and ‘a good mare’ (see above) (n=11; 4.8%). As with dressage, the respondents who selected a mare for show-jumping did so in a somewhat ambivalent manner that implied mares can be wonderful, or difficult: “*can’t beat a mare on her day, just got to pick the day!!*” (R693).

Trail-riding

Trail-riding can be practiced competitively, as a sport, or non-competitively as a leisure pursuit, in which horse and rider traverse tracks and trails together for fun. Trail-riding can take place in a variety of environments, in groups or alone, and can last for minutes, hours or even days. A trail-riding horse needs to be fit but, perhaps more importantly, safe and reliable over varied ground and when meeting unknown external stimuli and potential stressors. Trail horses also usually need to be safe in the company of other horses, as trail-riding is often a sociable activity for the rider

(Dashper, 2017). Geldings were by far the most popular choice of respondents (n=731; 71.6%), followed by mares (n=240; 23.5%) and then stallions (n=50; 4.9%).

The main five reasons given for choosing geldings for trail-riding were ‘easy-going’ (n=123; 16.8%), ‘calm’ (n=91; 12.4%), ‘reliable’ (n=85; 11.6%), ‘good in groups’ (n=72; 9.8%), and ‘safe’ (n=56; 7.7%). They were described as “*casual, laid back, pleasant attitude*” (R30), and “*much more likely to chill out and ignore exciting things*” (R91) - qualities which many respondents believed suit geldings for trail-riding.

The main five reasons given for choosing a stallion for trail-riding were ‘temperament’ (n= 5; 10%), ‘brave’ (n= 4; 8%), ‘calm’ (n=3; 6%), ‘challenge’ (n=2; 4%), and ‘fun’ (n=2; 4%). Stallions were not chosen by many respondents for trail-riding, as they can be more difficult to ride in groups. Those who did choose stallions described them as “*more interesting ride*” (R163), “*braver and less spooky*” (R297) and “*probably more fun*” (R120).

The main five reasons given for choosing a mare for trail-riding were ‘willing’ (n=23; 9.6%), ‘looks after rider’ (n=18; 7.5%), ‘brave’ (n=18; 7.5%), ‘calm’ (n=15; 6.3%), and ‘a good mare’ (n=13; 5.4%). Mares were described as “*big hearted and willing to please*” (R734) and “*mares are more forgiving and give more of themselves*” (R1107). As with the other activities, there was some ambivalence in how the choice of a mare as a trail-riding partner was explained, for example, “*if you bond with a mare they will die rather than let you down. But you have to bond with them first!*” (R1137).

Application of gender stereotypes to horses

The survey asked respondents to make simplistic judgements of a horse's suitability for a sport or leisure role, based solely on knowledge of the horse's sex. There was no option of 'all three' (mare, stallion and gelding) and, of the 3,075 short-answer explanations, only 8.4% (n=258) of responses stated that sex of the animal was of little or no importance in the selection of a horse for a specific activity, with all other respondents providing an answer based on sex. Overall, respondents to the survey showed a strong preference for male horses (geldings and, to a lesser extent, stallions). As the findings reported above indicate, geldings were favoured for their relaxed and easy-going attitudes, reliability and consistency, in contrast to stallions who were generally favoured for their physical presence, looks and power. Broad generalisations and stereotypes were applied to justify choices, building on assumptions of shared characteristics and abilities of horses according to sex. Gender stereotypes were commonly used to justify choice of a particular sex of horse for a specified activity.

The application of gender stereotypes was most apparent in relation to mares. Those who selected mares for any of the three activities often explained their choice in ambivalent terms, indicating that mares could be exceptional or difficult, with little in between. The notion of a 'good mare' was evident in the data, "*a good mare is a great horse! Once you have a partnership with them, they will do anything*" (R235). Implied in this is the notion that there are also many 'bad mares' or 'not good mares', and respondents described mares as "moody", "difficult" and "flighty". Mares were seen

as challenging, particularly in comparison to geldings, and whilst some respondents valued and enjoyed this challenge, many implied that this feature of mare's behaviour makes mares less reliable as a choice of riding partner: "*chose mare as if get on same wavelength will try their heart out. But can be unpredictable – either win or come last*" (R298).

Reasons for choosing a mare for any of the three activities built on gendered stereotypes of females (human and animal) as challenging, difficult to understand and unpredictable. Mares were also described as "*loyal*" (R620), "*amazing caretakers and caregivers*" (R963), "*maternal*" (R454) and "*protective*" (R963), drawing on other well-established gender stereotypes of females as 'natural' carers and concerned with others' well-being (Dashper, 2016). Surprisingly, given the common-sense association between females and motherhood, only 0.5% (n=15) of respondents indicated that they would select a mare for her breeding potential, compared with 2% (n=60) for stallions. This may be related to the practice of associating animals, particularly horses, more with their sire rather than their dam, indicative of the greater importance placed on male animals in relation to breeding (Hurn, 2008; Wolff & Hausberger, 1996).

When applied to male horses, particularly stallions, gender stereotypes were generally used in more positive ways. Stallions were described as "*powerful*" (R966), "*strong*" (R1035), "*have presence*" (R950) and "*the WOW factor*" (R603), and many respondents linked stallions' supposed physical advantages to the putative effects of male hormones and related increased muscle mass. Although there are many

successful horses of all sexes competing in both dressage and show jumping, stallions were the most likely to be praised for their physical attributes and prowess, drawing on established gender stereotypes of males as strong, aggressive and competitive.

That mares were the least popular choice of horse across the three activities combined (n=633; 20.6% compared with n=763; 24.8% choosing stallions, and n=1679; 54.6% choosing geldings) indicates that the ambivalent attitudes associated with mares may affect people's beliefs about their suitability as sport and leisure partners. We discuss some of the implications of these findings in the final section.

DISCUSSION

The majority of respondents to the survey based their answers on broad sex-based stereotypes. The data illustrate general consensus about the shared characteristics of different sexes of horses, even when no other information about that animal is known, suggesting the widespread awareness, possibly acceptance, of such stereotypes within the horse community.

Many of the justifications offered for choosing one sex of horse over another are based on anthropocentric gender stereotypes. Applied to horses, they reflect and reinforce human-based gender assumptions, which can affect attitudes and interactions with others (Haines et al., 2016). Throughout this article, we have employed a theoretical framework informed by feminist human-animal studies and

sociological studies of (human) gender relations, and such an approach draws attention to some of the potentially limiting consequences of the anthropomorphic application of gender stereotypes to horses. Gender stereotypes as applied to horses thus reflect and reinforce human assumptions about supposedly natural behaviours of males and females, positioning the two as complementary and opposite, yet fundamentally unequal (Schippers, 2007). Within this deeply embedded - but often invisible - gender order, the feminine/female is positioned as opposite, yet inferior, to the masculine/male (Dashper, 2016). Attributing aspects of this same gender order to animals, through the use of gender stereotypes, risks repeating and reinforcing this hierarchy and may position female animals, in this case mares, as less attractive, agentic and appealing than male animals, in this case stallions.

The gelding occupies a somewhat liminal position in this human-animal gender order, neither entirely masculine nor feminine (Hurn, 2008). He benefits from his maleness—being seen as strong and capable—yet his lack of sexual drives and hormones makes him non-threatening. He is neither fully male nor fully feminised, so occupies a mid-position, making him safe, friendly and reliable and consequently a popular choice for leisure and sport riding.

The findings of our survey indicate a strong preference for male horses over female horses for sport and leisure activities. There is some evidence of sex-related differences in motor laterality (Murphy, Sutherland & Arkins, 2005) and learning rates (Sappington, McCall, Coleman, Kuhlers & Lishak, 1997). It has been shown that female horses tend to outperform males in certain rule-learning tests (Sappington et

al., 1997) as well as tests with combinations of barriers (spatial detour tests, Wolff & Hausberger, 1996). However, there are no demonstrated sex-based advantages in any of the activities discussed in the current study, and we note that all three sexes perform well in dressage and show-jumping at all levels. So, it may be argued that preference for male horses is based largely on stereotypical judgements that may make female horses less attractive sporting/leisure partners in the eyes of some potential owners/caretakers/competitors. Within humans, broad acceptance of limiting gender stereotypes has material consequences for women, positioning them as less capable, dynamic and active than men and contributing to outcomes such as the gender pay gap and glass ceiling (McDonagh & Pappano, 2007). Widespread acceptance of restrictive gender stereotypes for horses may also have material consequences for mares, positioning them as less attractive riding partners in sport and leisure, as indicated by the responses to the current survey. This may make mares less desirable on the market, for sport and leisure, and may lead potential owners to reject mares as leisure and sport horses, making it more difficult to find suitable homes for mares. These issues require further research, because such outcomes may contribute to so-called behavioural wastage (the loss of animals to industry because of their being perceived to have undesirable behavioural traits). They may also mean that mares are less likely than males to be assessed as performance animals and so desirable genes in maternal lines may be poorly appreciated.

There are several limitations to the current study. First, the survey was designed to be simple to complete; respondents were asked to give short answers to justify their responses, and so there was limited space (25 words) to offer an explanation. Second, the survey did not give the option of 'any' to the choice of which horse respondents

thought most suitable to a task, forcing them to make a choice based on sex alone. However, given that 8.4% (n=258) of respondents overcame this by stating in their short-text answer that ‘sex’ was not an important consideration for them in selecting a suitable horse for a given activity, this was not a major issue. Finally, the three questions were worded slightly differently. Respondents were asked which horse they would *expect* to see in dressage and show jumping but which horse they would *choose* for trail riding and, in future studies, consistency across the questions would be preferable (Arbor, 2016), as all three disciplines are undertaken by riders of varying levels and experience.

Our findings suggest widespread acceptance and use of simplistic gender stereotypes in assessing the suitability of horses for a given activity. These judgements, made on the basis of gender stereotypes, tend to disadvantage female horses, who are seen as less desirable partners in sport and leisure than their male equivalents. Our findings support Ramirez’s (2006) conclusions that gender stereotypes inform relationships not only between humans, but also between humans and other species. Our findings also illustrate that gender stereotypes are frequently applied to horses by both leisure riders, who likely made up the majority of our sample, and professional breeders, as identified in Hurn’s (2008) research. Gender stereotypes are necessarily simplistic and narrow, and their anthropomorphic application to non-human animals may limit interspecies understanding to the disadvantage of female animals, horses in this case, who are consistently seen as less desirable, powerful and reliable than their male counterparts.

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